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EXAMINER	
SHIVERS, ASHLEY L	

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2477	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/829,539	TAYLOR ET AL.	
	Examiner	Art Unit	
	ASHLEY L. SHIVERS	2477	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *Feb. 22, 2011 (RCE)*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11,15-23 and 26-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11,15-23 and 26-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *4/22/04, 8/13/09 & 1/20/10* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 22, 2011 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-5, 8-10, 15-18, 20-22 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sibbitt et al. (**U.S. Patent No. 5,065,392**), hereinafter referred to as Sibbitt in view of Jepsen (**U.S. Patent No. 6,366,581**), hereinafter referred to as Jepsen in further view of Kajitani et al. (**U.S. Patent No. 6,643,254**), hereinafter referred to as Kajitani.

Regarding claim 1, Sibbitt teaches a method for provisioning logical circuits for intermittent use in a data network, the method comprising:

receiving at least one customer order for routing data in the data network for a predetermined time period (**An end user at any node can log into the controller and send instructions as to the bandwidth desired between nodes and the exact time that such bandwidth will be required; See col. 2, lines 36-39**);

provisioning at least one logical circuit in the data network for routing the customer data during the predetermined time period (**The controller determines that the end user has authorization to use the requested bandwidth during the time of the requested period and then looks for channels of the communication facilities between the end points requested which will be idle during the prospective time period. Once the path is identified, then available bandwidth through the path must be selected and reserved. Once this is accomplished, the prospective routing is scheduled for use by the initiating end user during the requested time period; See col. 2, lines 40-46 and 49-53**);

adding the at least one logical circuit to a deletion batch (**The original request includes the disconnection time, therefore all connections that are scheduled to be disconnected at the same time will be in the same deletion batch; See Fig. 10, #1007 and Fig. 12**); and

disconnecting the at least one logical circuit at the end of the predetermined time period (**The end time of the active circuit is interpreted as disconnection of the circuit; See Fig. 10, #1007 and Fig. 12**).

While Sibbitt teaches of looking for and reserving channels associated with the communication facilities in the path identified, Sibbitt fails to explicitly teach of the various communication facilities associated with the path.

Jepsen teaches of an automated method wherein a user requests the generation of a PVC with a virtual path comprising multiple virtual channels (**See col. 4, lines 23-37**) using the interNNI (**between different operating companies; See col. 8, lines 17-21**) in an ATM network (**See Fig. 1**) comprising multiple LATAs (**multiple operating companies; See Fig. 1**) and an inter-exchange carrier (**IC; See Fig. 1**) and having the telecommunications apparatus generate the PVC based on the requested parameters (**See Fig. 1, col. 3, lines 43-67, col. 4, lines 23-37**). The communications through the LATAs comprises a variable communication path (**NNI between multiple LECs within the operating companies, wherein Examiner believes that operating company c can also incorporate more than two LECs in the same manner as operating company A to show the variable paths within the company; See Fig. 1**) and the LATAs to IEC comprise fixed communication paths (**As per the instant application, the NNI is a fixed path, therefore the NNI of Jepson is equated to be the same type of fixed communication path; See NNIs; Fig. 1**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of Sibbitt to include the LATAs and the IEC along with the communication paths associated with the three components taught by Jepsen in order to provide the detailed communication path being used by the circuit in the network and allow for communication between users in different regions/companies.

Sibbitt in view of Jepsen fails to explicitly teach of the first variable communication paths that automatically reroute from a first set of switches of the first LATA to a second set of switches of the first LATA while maintaining the at least one logical circuit.

Kajitani teaches of having multiple routes for the PVC, wherein the route changes but the virtual circuit is maintained (**See col. 2, lines 32-37 and col. 8, lines 49-55**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of Sibbitt in view of Jepsen to include the first variable communication paths that automatically reroute from a first set of switches of the first LATA to a second set of switches of the first LATA taught by Kajitani in order to quickly provide an alternate route when the fault occurs in an ATM network without wasting a time determining an alternate route after the fault occurs.

Regarding claim 2, Sibbitt further teaches the method of claim 1, wherein provisioning the at least one logical circuit comprises provisioning the at least one logical circuit prior to the start of the predetermined time period (**At the scheduled period of time, or slightly therebefore, the controller begins an assessment of the continued availability of the previously selected channels to insure that quality communications will be possible during the scheduled period; See col. 2, lines 54-57**).

Regarding claim 3, Sibbitt further teaches the method of claim 2, wherein provisioning the at least one logical circuit prior to the start of the predetermined time period comprises:

determining a maintenance window prior to the start of the predetermined time period (**The original request includes the connection time, which can be used as the maintenance window; See Fig. 10, #1006 and Fig. 12**); and

provisioning the at least one logical circuit during the maintenance window (**Provisioning of the circuit occurs during the time requested; See Fig. 10, #1006 and Fig. 12**).

Regarding claim 4, Sibbitt further teaches the method of claim 1, wherein disconnecting the at least one logical circuit at the end of the predetermined time period comprises disconnecting the at least one logical circuit following the end of the predetermined time period (**The original request includes the disconnection time, therefore the end time of the active circuit is interpreted as disconnection of the circuit; See Fig. 10, #1007 and Fig. 12**).

Regarding claim 5, Sibbitt further teaches the method of claim 4, wherein disconnecting the at least one logical circuit following the end of the predetermined time period comprises:

determining a maintenance window following the end of the predetermined time period (**The original request includes the disconnection time, which can be used as the maintenance window; See Fig. 10, #1007 and Fig. 12**); and

disconnecting the at least one logical circuit during the maintenance window (**The end time of the active circuit is interpreted as disconnection of the circuit; See Fig. 10, #1007 and Fig. 12**).

Regarding claim 8, Sibbitt teaches the method of claim 1, but fails to teach of the customer order comprising a quality of service parameter for the logical circuit.

Jepsen teaches of the customer order comprising QoS parameters (**See col. 6, lines 12-21**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of Sibbitt to include quality of service parameters taught by Jepsen in order to maintain an acceptable level of service for data transmission.

Regarding claim 9, Sibbitt still fails to teach the method of claim 8, wherein the quality of service parameter comprises at least one of an unspecified bit rate, a variable bit rate, and a committed bit rate.

Jepsen teaches of the QoS comprising at least one of a UBR, VBR and CBR (**See col. 6, lines 12-21**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of Sibbitt to include quality of service parameters taught by Jepsen in order to maintain an acceptable level of service for data transmission.

Regarding claim 10, Sibbitt teaches the method of claim 1, but fails to teach of the at least one logical circuit being a permanent virtual circuit.

Jepsen teaches PVC (**See col. 3, lines 40-42**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of Sibbitt to include the circuits being PVCs taught by Jepsen in order to provide a dedicated circuit link between the various facilities.

Regarding claim 15, Sibbitt teaches a system for provisioning logical circuits for intermittent use in a data network, the system comprising:

at least one network device (**Digital cross-connect; See Fig. 1, #11**) to establish a communications path for at least one logical circuit in the data network (**When the time comes to set up that connection, the controller will wake up, send the commands to the individual cross-connects so that they will make the connections and effect the end-to-end circuit from one customer premise to another; See col. 4, lines 10-15**); and

a network management module (**network controller; See Fig. 1, #40**) to:

receive at least one customer order for routing data in the data network during a predetermined time period (**An end user at any node can log into the controller and send instructions as to the bandwidth desired between nodes and the exact time that such bandwidth will be required; See col. 2, lines 36-39**);

provision the at least one logical circuit for routing the customer data during the predetermined time period (**The controller determines that the end user has authorization to use the requested bandwidth during the time of the requested period and then looks for channels of the communication facilities between the end points requested which will be idle during the prospective time period. Once the path is identified, then available bandwidth through the path must be selected and reserved. Once this is accomplished, the prospective routing is scheduled for use by the initiating end user during the requested time period; See col. 2, lines 40-46 and 49-53**);

add the at least one logical circuit to a deletion batch (**The original request includes the disconnection time, therefore all connections that are scheduled to be disconnected at the same time will be in the same deletion batch; See Fig. 10, 1007 and Fig. 12**); and

disconnect the at least one logical circuit following the end of the predetermined time period (**The end time of the active circuit is interpreted as disconnection of the circuit; See Fig. 10, #1007 and Fig. 12**).

While Sibbitt teaches of looking for and reserving channels associated with the communication facilities in the path identified, Sibbitt fails to explicitly teach of the various communication facilities associated with the path.

Jepsen teaches of a transmission apparatus (**transmission switch; See col. 3, lines 59-60**) that receives a user request for the generation of a PVC with a virtual path comprising multiple virtual channels (**See col. 4, lines 23-37**) using the interNNI (**between different operating companies; See col. 8, lines 17-21**) in an ATM network (**See Fig. 1**) comprising multiple LATAs (**multiple operating companies; See Fig. 1**) and an inter-exchange carrier (**IC; See Fig. 1**) and having the telecommunications apparatus generate the PVC based on the requested parameters (**See Fig. 1, col. 3, lines 43-67, col. 4, lines 23-37**). The communications through the LATAs comprises a variable communication path (**NNI between multiple LECs within the operating companies, wherein Examiner believes that operating company c can also incorporate more than two LECs in the same manner as operating company A to show the variable paths within the company; See Fig. 1**) and the LATAs to IEC comprise fixed communication paths (**As per the instant application, the NNI is a fixed path, therefore the NNI of Jepson is equated to be the same type of fixed communication path; See NNIs; Fig. 1**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the system of Sibbitt to include the LATAs and the IEC along with the communication paths associated with the three components taught by Jepsen in order to provide the detailed communication path being used by the circuit in the network and allow for communication between users in different regions/companies.

Sibbitt in view of Jepsen fails to explicitly teach of the first variable communication paths that automatically reroute from a first set of switches of the first LATA to a second set of switches of the first LATA while maintaining the at least one logical circuit.

Kajitani teaches of having multiple routes for the PVC, wherein the route changes but the virtual circuit is maintained (**See col. 2, lines 32-37 and col. 8, lines 49-55**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the system of Sibbitt in view of Jepsen to include the first variable communication paths that automatically reroute from a first set of switches of the first LATA to a second set of switches of the first LATA taught by Kajitani in order to quickly provide an alternate route when the fault occurs in an ATM network without wasting a time determining an alternate route after the fault occurs.

Regarding claim 16, Sibbitt further teaches the system of claim 15, wherein the network management module, in provisioning the at least one logical circuit, is operative to provision the at least one logical circuit prior to the start of the predetermined time period (**At the scheduled period of time, or slightly therebefore, the controller begins an assessment of the continued availability of the previously selected channels to insure that quality communications will be possible during the scheduled period; See col. 2, lines 54-57**).

Regarding claim 17, Sibbitt further teaches the system of claim 16, wherein the network management module, in provisioning the at least one logical circuit prior to the start of the predetermined time period, is operative to:

determine a maintenance window prior to the start of the predetermined time period (**The original request includes the connection time, which can be used as the maintenance window; See Fig. 10, #1006 and Fig. 12**); and

provision the at least one logical circuit during the maintenance window (**Provisioning the circuit occurs during the time requested; See Fig. 10, #1006 and Fig. 12**).

Regarding claim 18, Sibbitt further teaches the system of claim 15, wherein the network management module, in disconnecting the at least one logical circuit following the end of the predetermined time period, is operative to:

determine a maintenance window following the end of the predetermined time period (**The original request includes the disconnection time, which can be used as the maintenance window; See Fig. 10, #1007 and Fig. 12**); and

disconnect the at least one logical circuit during the maintenance window (**The end time of the active circuit is interpreted as disconnection of the circuit; See Fig. 10, #1007 and Fig. 12**).

Regarding claim 20, Sibbitt teaches the system of claim 15, but fails to teach of the customer order comprising a quality of service parameter for the logical circuit.

Jepsen teaches of the customer order comprising QoS parameters (**See col. 6, lines 12-21**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the system of Sibbitt to include quality of service parameters taught by Jepsen in order to maintain an acceptable level of service for data transmission.

Regarding claim 21, Sibbitt still fails to teach the system of claims 20, wherein the quality of service parameter comprises at least one of an unspecified bit rate; a variable bit rate; and a committed bit rate.

Jepsen teaches of the QoS comprising at least one of a UBR, VBR and CBR (**See col. 6, lines 12-21**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the system of Sibbitt to include quality of service parameters taught by Jepsen in order to maintain an acceptable level of service for data transmission.

Regarding claim 22, Sibbitt teaches the system of claim 15, but fails to teach of the at least one logical circuit being a permanent virtual circuit.

Jepsen teaches PVC (**See col. 3, lines 40-42**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the system of Sibbitt to include the circuits being PVCs taught by Jepsen in order to provide a dedicated circuit link between the various facilities.

Regarding claim 26, Sibbitt teaches a method for provisioning logical circuits for routing logical circuit data in a data network during a time period, the method comprising:

receiving at least one customer order for routing the logical data in the data network during the time period (**An end user at any node can log into the controller and send instructions as to the bandwidth desired between nodes and the exact time that such bandwidth will be required; See col. 2, lines 36-39**);

determining a maintenance window prior to the start of the time period (**The original request includes the connection time, which can be used as the maintenance window; See Fig. 10, #1006 and Fig. 12**);

provisioning the at least one logical circuit during the maintenance window (**The controller determines that the end user has authorization to use the requested bandwidth during the time of the requested period and then looks for channels of the communication facilities between the end points requested which will be idle during the prospective time period. Once the path is identified, then available bandwidth through the path must be selected and reserved. Once this is accomplished, the prospective routing is scheduled for use by the initiating end user during the requested time period; See col. 2, lines 40-46 and 49-53**);

determining a maintenance window following the end of the time period (**The original request includes the disconnection time, which can be used as the maintenance window; See Fig. 10, #1007 and Fig. 12**); and

disconnecting the at least one logical circuit during the maintenance window (**The end time of the active circuit is interpreted as disconnection of the circuit; See Fig. 10, #1007 and Fig. 12**).

While Sibbitt teaches of looking for and reserving channels associated with the communication facilities in the path identified, Sibbitt fails to explicitly teach of the various communication facilities associated with the path.

Jepsen teaches of an automated method wherein a user requests the generation of a PVC with a virtual path comprising multiple virtual channels (**See col. 4, lines 23-37**) using the interNNI (**between different operating companies; See col. 8, lines 17-21**)

in an ATM network (**See Fig. 1**) comprising multiple LATAs (**multiple operating companies; See Fig. 1**) and an inter-exchange carrier (**IC; See Fig. 1**) and having the telecommunications apparatus generate the PVC based on the requested parameters (**See Fig. 1, col. 3, lines 43-67, col. 4, lines 23-37**). The communications through the LATAs comprises a variable communication path (**NNI between multiple LECs within the operating companies, wherein Examiner believes that operating company c can also incorporate more than two LECs in the same manner as operating company A to show the variable paths within the company; See Fig. 1**) and the LATAs to IEC comprise fixed communication paths (**As per the instant application, the NNI is a fixed path, therefore the NNI of Jepson is equated to be the same type of fixed communication path; See NNIs; Fig. 1**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of Sibbitt to include the LATAs and the IEC along with the communication paths associated with the three components taught by Jepsen in order to provide the detailed communication path being used by the circuit in the network and allow for communication between users in different regions/companies.

Sibbitt in view of Jepsen fails to explicitly teach of the first variable communication paths that automatically reroute from a first set of switches of the first LATA to a second set of switches of the first LATA while maintaining the at least one logical circuit.

Kajitani teaches of having multiple routes for the PVC, wherein the route changes but the virtual circuit is maintained (**See col. 2, lines 32-37 and col. 8, lines 49-55**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of Sibbitt in view of Jepsen to include the first variable communication paths that automatically reroute from a first set of switches of the first LATA to a second set of switches of the first LATA taught by Kajitani in order to quickly provide an alternate route when the fault occurs in an ATM network without wasting a time determining an alternate route after the fault occurs.

4. Claims 6-7 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sibbitt in view of Jepsen and Kajitani in further view of Hollman et al. (**U.S. Patent No. 7,146,000**), hereinafter referred to as Hollman.

Regarding claim 6, while Sibbitt teaches of the disk that contains the data description of the network controlled by the controller (**See col. 4, lines 49-51**), Sibbitt fails to teach of generating trap data. Sibbitt in view of Jepsen and Kajitani further fails to teach of generating trap data for each logical circuit during the predetermined time period, wherein the trap data comprises utilization statistics.

Hollman teaches generating trap data for each logical circuit during the predetermined time period, wherein the trap data comprises utilization statistics for the at least one logical circuit (**The routing engine determines the available capacity between the source and destination, which is equivalent to the disk of Sibbitt. Service type and bandwidth information dictate which specific routing policy rules to use. The routing process then builds a capacity graph including only the filtered set of capacity links between the source and destination. The capacity graph is interpreted as having the utilization statistics for the circuit connection and that would be obtained during the provisioning in the predetermined time period and be maintained as part of the status information indicated by Sibbitt; See Fig. 10, #1008; col. 1, lines 66-67 and col. 2 lines 1-3**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of Sibbitt in view of Jepsen and Kajitani to include generating trap data for each logical circuit during the predetermined time period, wherein the trap data comprises utilization statistics taught by Hollman in order to constantly manage the bandwidth.

Regarding claim 7, Sibbitt in view of Jepsen and Kajitani still fails to teach of the utilization statistics including the percent utilization of the circuit during the predetermined time period.

Hollman teaches of the utilization statistics comprising the percent utilization of the at least one logical circuit during the predetermined time period (**The capacity graph is interpreted to have the percent of the utilization for the circuit connection; See col. 1, lines 66-67 and col. 2 lines 1-3**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of Sibbitt in view of Jepsen and Kajitani to include the utilization statistics comprising percent utilization taught by Hollman in order to constantly manage the bandwidth.

Regarding claim 19, Sibbitt teaches the system of claim 15, further comprising a logical element module (**a disk which includes the data description of the network; See Fig. 1, 43 and col. 4, lines 49-50**), in communication with the at least one network device and the network management module. Sibbitt in view of Jepsen and Kajitani fails to teach of the module receiving trap data generated by the network device.

Hollman teaches of a logical element module (**A routing engine, which is equivalent to the disk of Sibbitt, as this is relied upon to obtain the capacity and availability which is inclusive of a data description of the network; See col. 5, lines 40-43**) to receive trap data generated by the at least one network device, wherein the trap data comprises a percent utilization of the at least one logical circuit during the predetermined time period (**The capacity graph is interpreted as having the utilization statistics for the circuit connection; See col. 1, lines 66-67 and col. 2 lines 1-3**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the system of Sibbitt in view of Jepsen and Kajitani to include a logical element module that receives trap data comprising a percent utilization taught by Hollman in order to constantly manage bandwidth.

5. Claims 11 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sibbitt in view of Jepsen and Kajitani in further view of Chiu et al. (**U.S. Patent No. 6,597,689**), hereinafter referred to as Chiu.

Regarding claim 11, Sibbitt in view of Jepsen and Kajitani teaches the method of claim 1, but fails to teach of the at least one logical circuit being a switched virtual circuit.

Chiu teaches of the circuit being a SVC (**Two types of virtual connections are PVCs and SVCs**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of Sibbitt in view of Jepsen and Kajitani to include the circuits being SVCs taught by Chiu in order to reduce the amount of resources being used.

Regarding claim 23, Sibbitt in view of Jepsen and Kajitani teaches the system of claim 15, but fails to teach of the at least one logical circuit being a switched virtual circuit.

Chiu teaches of the circuit being a SVC (**Two types of virtual connections are PVCs and SVCs**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the system of Sibbitt in view of Jepsen and Kajitani to include the circuits being SVCs taught by Chiu in order to reduce the amount of resources being used.

6. Claims 27-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sibbitt in view of Jepsen and Kajitani in further view of Naven et al (**U.S. Patent No. 6,810,043**), hereinafter referred to as Naven.

Regarding claim 27, Sibbitt teaches the method of claim 1, further comprising:

receiving a second customer order for routing second data in the data network for a second time period (**Schedule ID 111; See Fig. 10**), wherein the at least one customer order is received at a first time of receipt (**Schedule ID 113; See Fig. 10**) and the second customer order is received at a second time of receipt (**In Fig. 10, multiple requests are received, some of which are on separate dates, such as Schedule IDs 113 and 111**).

While Sibbitt teaches of the requests, there is no set time range set up to determine the maintenance window. Sibbitt in view of Jepsen and Kajitani fails to teach of selecting a first maintenance window to provision the circuit based on a first time of receipt being within a first range corresponding to the maintenance window, and

selecting the maintenance window for the second order based on the time of receipt of the request.

Naven teaches of:

selecting a first maintenance window to provision the at least one logical circuit based on the first time of receipt being within a first time of receipt range corresponding to the first maintenance window (**The master calendar holds entries corresponding to events that are to occur within a preselected master-calendar scheduling range, therefore all requests that are received are input into the master calendar to be set up for provisioning at the scheduled time; See Abstract lines 3-5**);

when the second time of receipt corresponding to the second customer order is within the first time of receipt range, selecting the first maintenance window to provision a second logical circuit corresponding to the second customer order (**If the second request fits into the time of the master-calendar scheduling range then it is provided the same maintenance window as the first request; See Abstract lines 3-5**); and

when the second time of receipt corresponding to the second customer order is not within the first time of receipt range, selecting a second maintenance window to provision the second logical circuit (**If the interval between the current time and a desired scheduling time exceeds said scheduling range, the**

entry is put in the slave calendar until the scheduling range for that request arrives; See Abstract lines 5-7 and 10-12).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of Sibbitt in view of Jepsen and Kajitani to include selecting a first maintenance window to provision the circuit based on a first time of receipt being within a first range corresponding to the maintenance window, and selecting the maintenance window for the second order based on the time of receipt of the request taught by Naven in order to allow various connections to be made without requiring complicated processing of the calendar entries when the scheduling results in widely disparate intervals.

Regarding claim 28, Sibbitt in view of Jepsen and Kajitani further fails to teach the method of claim 27, wherein the first maintenance window occurs during a time range during which a plurality of logical connections assigned to the first maintenance window are provisioned based on customer orders corresponding to the plurality of logical connections having been received during the first time of receipt range.

Naven teaches of the first maintenance window occurring during a time range when a plurality of connections is provisioned based on the first time of receipt range (**See Abstract lines 3-5**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of Sibbitt in view of Jepsen and Kajitani to

include the first maintenance window occurring during a time range during which a plurality of logical connections assigned to the first maintenance window are provisioned based on customer orders corresponding to the plurality of logical connections having been received during the first time of receipt range taught by Naven in order to allow for multiple circuits to be provisioned at the same time thereby increases network productivity.

Regarding claim 29, Sibbitt further teaches the system of claim 15, wherein the network management module is further to:

> receive a second customer order for routing second data in the data network for a second time period (**Schedule ID 111; See Fig. 10**), wherein the at least one customer order is received at a first time of receipt (**Schedule ID 113; See Fig. 10**) and the second customer order is received at a second time of receipt (**In Fig. 10, multiple requests are received, some of which are on separate dates, such as Schedule IDs 113 and 111**).

While Sibbitt teaches of the requests, there is no set time range set up to determine the maintenance window. Sibbitt in view of Jepsen and Kajitani fails to teach of selecting a first maintenance window to provision the circuit based on a first time of receipt being within a first range corresponding to the maintenance window, and selecting the maintenance window for the second order based on the time of receipt of the request.

Naven teaches of:

select a first maintenance window to provision the at least one logical circuit based on the first time of receipt being within a first time of receipt range corresponding to the first maintenance window (**The master calendar holds entries corresponding to events that are to occur within a preselected master-calendar scheduling range, therefore all requests that are received are input into the master calendar to be set up for provisioning at the scheduled time; See Abstract lines 3-5**);

when the second time of receipt corresponding to the second customer order is within the first time of receipt range, select the first maintenance window to provision a second logical circuit corresponding to the second customer order (**If the second request fits into the time of the master-calendar scheduling range then it is provided the same maintenance window as the first request; See Abstract lines 3-5**); and

when the second time of receipt corresponding to the second customer order is not within the first time of receipt range, select a second maintenance window to provision the second logical circuit (**If the interval between the current time and a desired scheduling time exceeds said scheduling range, the entry is put in the slave calendar until the scheduling range for that request arrives; See Abstract lines 5-7 and 10-12**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the system of Sibbitt in view of Jepsen and Kajitani to include selecting a first maintenance window to provision the circuit based on a first time of receipt being within a first range corresponding to the maintenance window, and selecting the maintenance window for the second order based on the time of receipt of the request taught by Naven in order to allow various connections to be made without requiring complicated processing of the calendar entries when the scheduling results in widely disparate intervals.

Regarding claim 30, Sibbitt in view of Jepsen and Kajitani further fails to teach the system of claim 29, wherein the first maintenance window occurs during a time range during which a plurality of logical connections assigned to the first maintenance window are provisioned based on customer orders corresponding to the plurality of logical connections having been received during the first time of receipt range.

Naven teaches of the first maintenance window occurring during a time range when a plurality of connections is provisioned based on the first time of receipt range (**See Abstract lines 3-5**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the system of Sibbitt in view of Jepsen and Kajitani to include the first maintenance window occurring during a time range during which a plurality of logical connections assigned to the first maintenance window are

provisioned based on customer orders corresponding to the plurality of logical connections having been received during the first time of receipt range taught by Naven in order to allow for multiple circuits to be provisioned at the same time thereby increases network productivity.

Regarding claim 31, Sibbitt further teaches the method of claim 26, further comprising:

receiving a second customer order for routing second data in the data network for a second time period (**Schedule ID 111; See Fig. 10**), wherein the at least one customer order is received at a first time of receipt (**Schedule ID 113; See Fig. 10**) and the second customer order is received at a second time of receipt (**In Fig. 10, multiple requests are received, some of which are on separate dates, such as Schedule IDs 113 and 111**).

While Sibbitt teaches of the requests, there is no set time range set up to determine the maintenance window. Sibbitt in view of Jepsen and Kajitani fails to teach of selecting a first maintenance window to provision the circuit based on a first time of receipt being within a first range corresponding to the maintenance window, and selecting the maintenance window for the second order based on the time of receipt of the request.

Naven teaches of:

selecting a first maintenance window to provision the at least one logical circuit based on the first time of receipt being within a first time of receipt range corresponding to the first maintenance window (**The master calendar holds entries corresponding to events that are to occur within a preselected master-calendar scheduling range, therefore all requests that are received are input into the master calendar to be set up for provisioning at the scheduled time; See Abstract lines 3-5**);

when the second time of receipt corresponding to the second customer order is within the first time of receipt range, selecting the first maintenance window to provision a second logical circuit corresponding to the second customer order (**If the second request fits into the time of the master-calendar scheduling range then it is provided the same maintenance window as the first request; See Abstract lines 3-5**); and

when the second time of receipt corresponding to the second customer order is not within the first time of receipt range, selecting a second maintenance window to provision the second logical circuit (**If the interval between the current time and a desired scheduling time exceeds said scheduling range, the entry is put in the slave calendar until the scheduling range for that request arrives; See Abstract lines 5-7 and 10-12**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of Sibbitt in view of Jepsen and Kajitani to

include selecting a first maintenance window to provision the circuit based on a first time of receipt being within a first range corresponding to the maintenance window, and selecting the maintenance window for the second order based on the time of receipt of the request taught by Naven in order to allow various connections to be made without requiring complicated processing of the calendar entries when the scheduling results in widely disparate intervals.

Regarding claim 32, Sibbitt in view of Jepsen and Kajitani further fails to teach the method of claim 31, wherein the first maintenance window occurs during a time range during which a plurality of logical connections assigned to the first maintenance window are provisioned based on customer orders corresponding to the plurality of logical connections having been received during the first time of receipt range.

Naven teaches of the first maintenance window occurring during a time range when a plurality of connections is provisioned based on the first time of receipt range (**See Abstract lines 3-5**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of Sibbitt in view of Jepsen and Kajitani to include the first maintenance window occurring during a time range during which a plurality of logical connections assigned to the first maintenance window are provisioned based on customer orders corresponding to the plurality of logical connections having been received during the first time of receipt range taught by Naven

in order to allow for multiple circuits to be provisioned at the same time thereby increases network productivity.

Response to Arguments

7. Applicant's arguments with respect to claims 1, 15 and 26 have been considered but are moot in view of the new ground(s) of rejection.

On pages 10-12 of the Applicants' Response, Applicants state that Sibbitt et al. (**U.S. Patent No. 5,065,392**), hereinafter referred to as Sibbitt in view of Jepsen (**U.S. Patent No. 6,366,581**), hereinafter referred to as Jepsen fails to teach of the first variable communication paths that automatically reroute from a first set of switches of the first local access and transport area to a second set of switches of the first local access and transport area while maintaining the at least one logical circuit.

Examiner agrees and has thus introduced Kajitani which teaches of the route of the PVC changing from a first route to a second route while maintaining the at least one logical circuit (**See col. 2, lines 32-37 and col. 8, lines 49-55**).

Conclusion

8. Any response to this action should be **faxed** to (571) 273-8300 or **mailed** to:

Commissioner of Patents,
P.O. Box 1450
Alexandria, VA 22313-1450

Hand delivered responses should be brought to:
Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ASHLEY L. SHIVERS whose telephone number is (571) 270-3523. The examiner can normally be reached on Monday-Friday 8:30-5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chirag Shah can be reached on (571) 272-3144. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. L. S./
Examiner, Art Unit 2477
3/15/2011

/Gregory B Sefcheck/
Primary Examiner, Art Unit 2477
3/17/2011